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THOMAS A. EDISON.

A DAY WITH EDISON AT SCHENECTADY.

Passing swiftly through the suburbs of the sedate old city of Schenectady, on the New York Central Railway, one's attention is arrested by a huge range of factory buildings and by the numerous signs of pressing activity in and around them. The contrast with the surrounding pastoral scenery does but accentuate all the evidences presented of busy toil. Beyond the factory, as its lies solidly athwart the view, with its long facade to the railway and its remote rear bordered by the Erie Canal, winds and doubles the placid Mohawk river, hemmed in by green banks and girdled by uprolling mountains well away to the northward. It is a pleasant reminiscence of one of his nearest friends that just at the time of the demonstration of the commercial feasibility and practicability of the incandescent light Mr. Edison remarked to him one day, as they were passing the Singer Sewing Machine works at Elizabethport, N. J., that he hoped before long to be able himself to give employment to as many men as were there engaged. Within the decade the laudable wish had been gratified.

In Dr. Benson Lossing's admirable *History of American Industries and Arts*, issued at the time of the Centennial Exposition, there is no mention of a dynamo building. The fact is significant as to the youth of the new industry and as to its growth.

These shops are well placed for the handling of freight, and their advantages have been enhanced by the laying of rails all through the yards and shops. There is a total of nearly two miles of track, and the finished product can be loaded into the cars at five different shipping points.

The works employ from 750 to 850 hands, according to the season of the year, and at the time of the writer's visit about 775 were on the rolls.

The machine shop is not less than 122 feet wide and 306 feet long, and deservedly claims our attention first. Its central aisle is 40 feet wide, and there is a cathedral-like airiness and distance in its long perspectives. Five hundred men can easily find elbow room here for their work, with all the machinery. Here are 6,000 feet of shafting and some 50,000 feet of belting, driving nearly 400 separate mechanisms, in the production of apparatus whose birth was yesterday. Right and left are gigantic machine tools of every kind and style; here a planer 60 by 60 inches and 32 feet long; there a special boring mill, built to order at a cost of $6,000. The value of the tools, in fact, runs up into hundreds of thousands of dollars, and their multiplicity is understood on looking at the variety and extent of the work in hand.

The aspect of the floor in this vast shop, with the huge generators lying amid the motors, like stately lionesses surrounded by their whelps, is very suggestive of the new order of things. "Numerous attempts have been made," says Herbert Spencer in his treatise on education, "to construct electro-magnetic engines, in the hope of superseding steam, but had those who supplied the money understood the general law of the correlation and the equivalence of forces, they might have had better balances at their bankers." And yet, here we are, looking at literal hundreds of these very electro-magnetic engines, some of them intended to take the place and do the work of steam locomotives, while the remainder go to join thousands more already at work in nearly 150 industries in which they have been given the preference over steam engines and every other kind of motor. There is after all some truth in the remark, even when applied to philosophers, that "the world requires half-a-dozen years to learn of any advance and half-a-dozen more to understand it."

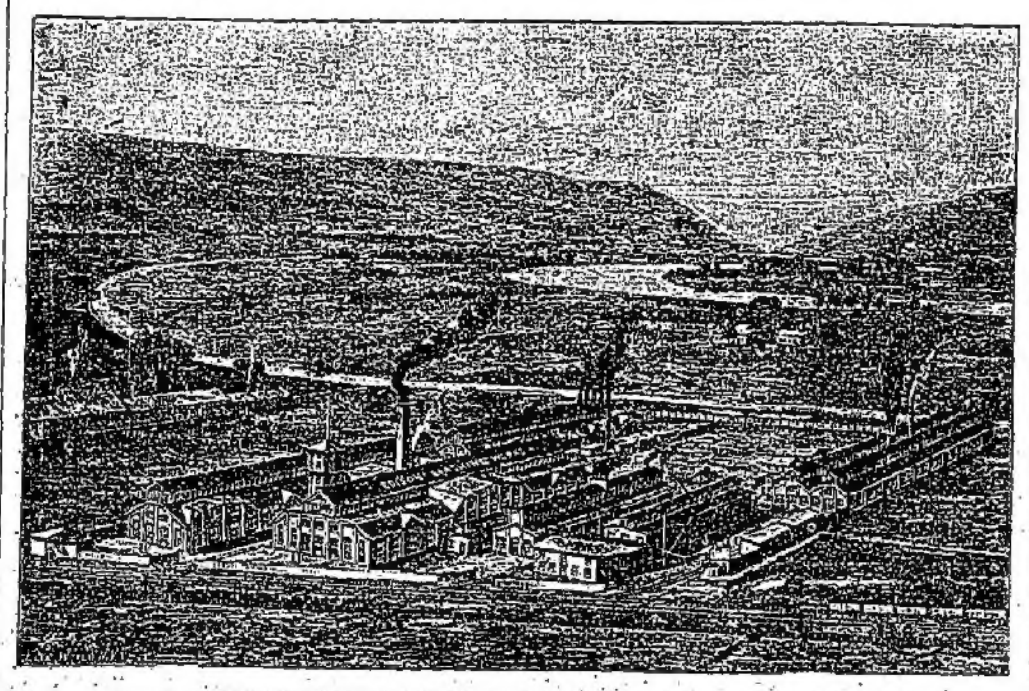
One might linger in this shop a week, so endless are the points of interest that it presents. A casual question as to some strange tool elicits the information that the company construct all their own tools here, except those ordinarily to be had in the market. All the machinery for the foundry department is made here, and a month or two ago, upon the receipt of an order for 25,000 feet of a specially insulated cable, the machinery was at once designed and built on the spot. Resources of this nature give an establishment courage and daring for the most onerous enterprises.

By natural transition our thoughts now wander from the heavy work connected with the dynamo construction to the finer and more delicate manipulation required in the production of an armature, and we find our way to shop No. 1, where the extensive department of armature winding is situated. It is only the lazy man who does any hard labor here; the busy man, in a hurry, at once avails himself of the conveniences provided for speedy work. It is an evidence of the progress in this department that the repair work brought in is barely 25 percent of what is was when the company was doing but a quarter of its present business. At first it was the practice to keep a complete gang of armature winders engaged on repair work, but there is now so little of it that it is done at odd times.

Mr. Edison made up his mind at the outset of his work in electric lighting that the conductors ought to be placed underground, and, having reached that conclusion, he proceeded with characteristic doggedness and ingenuity to elaborate the methods. He adopted iron pipe as the external mechanical protection of his conductors, his object being to provide something analogous to the means of distribution employed by gas and water companies, something which could withstand the strain of street traffic, the disintegrating influences of soil and climate, and the sudden onslaught of unfriendly pick or shovel. Inside this pipe he placed the conductors, carefully wrapped and insulated by an extremely viscous, almost solid compound.

The next branch of the business to be visited is the wire-insulating department. It affords a striking contrast with the scene just quitted, for while the conductors there became so large that they looked like sections of shafting, here they tend to the other extreme, at last being as fine as human hair; and all the machinery is naturally in keeping. This department was originally established to provide the dynamo and motor shops with insulated wire for the field magnets and armatures, but its usefulness and economy were so signally proved, that it was developed and extended, until now the works make insulated wire of all kinds, not only for themselves, but for outside customers of all classes. The wire covered runs from the largest sizes for heavy currents down to .0015, a conductor so small that it makes 32 miles to the pound; and the insulation work includes not only cotton and silk, but rubber. Some of the machinery is a marvel in its comprehensive ability, for it does everything, apparently, except label the completed wire. In one of the machines the bare stranded wire goes through seven distinct operations, and is delivered ready for use, with the exception, in some instances, of receiving a final coat of compound, which is necessarily applied in another place devoted to the less cleanly processes of that nature. Some of the machines run at high rates of speed. In one the spindle makes seven thousand revolutions a minute, and keeps it up with the utmost ease and indifference.

Since the first Edison dynamo was built—that for the unfortunate "Jeannette," and now lying with her in the cold depths of arctic ocean—140 central stations and 1,500 isolated plants, with a capacity of 1,250,000 lamps, have been installed in America alone to supply the Edison incandescent light, and the growth is going on at an accelerating pace. These figures are in themselves almost a fair justification of the imaginings in which the newspapers luxuriated when the electric light was in its infancy; and they certainly support beyond a cavil the remark made by Mr. Edison in an article published nearly four years ago on the "Commercial Evolution of Elec-



THE EDISON MACHINE WORKS, SCHENECTADY, N.Y.

tricity," and which excited great criticism at the time. "Two years' experience," he said, "proves beyond a doubt that the electric light for household purposes can be produced and sold in competition with gas." They who scoffed have remained to pray, the gas companies that were so hostile and incredulous being themselves now among the most active vendors of the new illuminant, or else so anxious as to the future that their yearnings for improved gas apparatus that can struggle with it are never adequately fulfilled. During the last ten years, one firm of engine-builders—the Armington & Sims Company—has sent out nearly as many engines to drive Edison dynamos as there were in all the United States fifty years ago.

The electric light is not merely based on scientific principles, but thoroughly accords with all that is scientific in modern ideas of safety, purity and cleanliness. It was called for by the intelligence of the times, whose comfort and convenience it so amply meets; and the men first to proclaim its merits and its desirability, and to act on their beliefs, have seen their every prediction realized to a striking degree within a decade.

It is in connection with the central station business that a remarkable development affecting the works is going on. Slowly but surely the stations are getting upon their proper basis of supplying current, not simply for lighting, but for all the other demands that may arise for it. A station is no longer a place where intense activity for five or six hours is succeeded by leisure and dulness the rest of the twenty-four. The telegraph office, requiring current for its circuits; the telephone exchange, with its magnetos to be run; the medical establishment, with patients to be cured by electricity; the printing offices, the ice cream saloons, the buildings with elevators, the wood-working factories, the chemical works with bad ventilation, the jeweller's workshop, the clothier's store—each of these and hundreds of other places need current all day long for direct use or to drive motors, and they are all becoming customers of the central stations. The Edison Machine Works have within the last year, besides building a large number of special generators, sent out thousands of horse-power of Sprague motors to these stations, and the tasks to which the motors are put multiply daily. The Works have furnished machines for more than 160 cotton, woollen and textile fabric mills; nearly 70 flour mills and grain elevators; just upon 100 iron works, car shops and machine shops; over 60 furniture and other woodworking establishments; about 100 miscellaneous factories, etc.; more than 50 newspapers and publishing offices; some 70 asylums and public institutions; around 50 theatres and places of amusement; nearly 250 banks, clubs, apartment houses, office buildings and fine residences; and paper mills, oil refineries, pumping stations, special works and the like to the number of 300 or 400 more.

From these works, machines have been despatched to regions as remote as Finland, China, Brazil and South Africa. The demand for electric lighting in South America may be said to be wholly met from this country, and the machines undergo all the trials of a long sea voyage as well as the handling of inexpert natives. A large contract filled not long since at Schenectady was for a plant for Tokio, Japan, where light is now being supplied to the Mikado and to a large portion of the city. Even the "hermit kingdom" of Corea has sent orders to the works.

Mr. Edison is the president of the company and Mr. Charles Batchelor the vice-president. The active control is in the hands of Mr. Samuel Insull—long Mr. Edison's private secretary—the treasurer and general manager, seconded by Mr. John Kruesi, the assistant general manager, who has as his aide Mr. W. B. Turner, superintendent of the works. Mr. John Langton, jr., is the mechanical engineer.

In electric lighting a gigantic and growing industry has been created. The boldness and the success with which so important an undertaking was called into existence by Mr. Edison do credit very strikingly to his business capacity. In all probability, on ordinary narrow business lines, he would be very much of a failure, just as we can conceive that Mr. Gladstone, the leading financier of England, would not shine as a book-keeper; but gauged by large principles of enterprise and forethought, Mr. Edison has won his right to the title of a "captain of industry" in its full meaning. He is not only the animating spirit of this establishment, but is actively interested in the Edison Lamp Company, at Harrison, N. J., with a factory turning out from 5,000 to 10,000 lamps per day, and in Bergmann & Co., in New York, where 500 men are employed in the manufacture of all the various details of the lighting system that relate to regulation, safety, control, measurement and decorative display. All these great industries are based on upwards of 500 patents owned by the Edison Electric Light Company, whose president is Mr. Edward H. Johnston, for very many years past closely connected with both the scientific and the commercial development of Mr. Edison's inventions.

As we take a farewell of the establishment, we may fittingly recall and apply the panegyric uttered by Mr. Samuel Smiles in his *Self Help*: "Inventors have set in motion some of the greatest industries of the world. To them society owes many of its chief necessaries, comforts and luxuries; and by their genius and labor daily life has been rendered in all respects more easy, as well as enjoyable. * * * Mankind at large are the happier for such inventions, and are every day reaping the benefit of them in an increase of individual well-being as well as of public enjoyment."—*Condensed from Electrical World.*

THE TRUE PLACE OF THE LIBRARY.

BY MARY J. STRAYER.

A strong present tendency is to depreciate the Sunday-school library. This is partly the result of two causes,—the poor selections made from the abundance of good material, and the slipshod way in which libraries are too frequently managed. There is, however, a conviction, among leading Sunday-school workers, that the library may be made one of the most efficient helps in the growth of the interest and spirituality of the school. How suitable books to this end may be chosen, and their distribution properly managed, are questions which should be thoroughly discussed by those in the work.

In order to utilize the library with the best possible results, the teacher must make Sunday-school literature a special study, and ought to know the character and contents of every book in his own school library,—certainly of those adapted to the ages and intellects of his own pupils. No person without such special preparations is fitted to fill a position where one of his duties is to distribute books so wisely that the most excellent results may follow their use.

There is also an interesting field of study outside of books,—the inner natures and feelings of his pupils, and their habits and surroundings. The teacher may understand the intellectual ability and preferences of his pupil; yet, if he knows, as well, his home and associations, he can still better adapt to the pupil's needs the books he puts into his hands. Without intimate knowledge of both book and boy, he may do an injury.

Any collection of books can be made of intrinsic value to young people only when their reading is directed by older and wiser heads. Permitting the members of a Sunday-school class to eagerly clutch and carry off books because of attractive bindings, titles, or pictures, is foolish and harmful, and the one of the principal factors in crippling and usefulness of the library. Only the teacher who studies the characteristics, peculiarities, and attainments, of every pupil in his class as he studies the contents of the library, is able to adapt the one to the other with the best results.

No librarian should ever be expected or permitted to furnish pupils with books. Still less should they be allowed exclusively to select for themselves. Every tactful teacher knows how to allow nominal liberty, and yet practically keep the distribution of books in his own hands. If the card system is used, he must suggest, advise, and be familiar with every number that finally goes down upon the cards. Failings, decided faults, and evil propensities, may be reached and corrected by books wisely chosen to that end.

The teacher who is determined to secure every benefit to be derived from the library will skilfully lead each pupil to talk about the book he has last read. His expressed impressions of it, and its noticeable effect upon him, will enable him to see from his standpoint, and will be of inestimable value to both in an educational sense.

A much urged objection to the library is that it consumes so much of the valuable time of the class. The objection would be a valid one did experience prove that, skilfully handled, the library fails of its purpose. Since the opposite is an established fact, the question is settled by the axiom that "time, as well as other commodities, must be distributed so as to accomplish the most good." The teacher must have a portion of his allotted time devoted to the library. Then he must jealously guard each division of precious moments from the encroachments of the other. His ability to utilize every moment, and his familiarity with the books, will facilitate rapidity in exchanging them.

Every Sunday-school worker should earnestly combat the pernicious impression that the library is simply a means of amusement. Only when it comes to be recognized as a practical factor in the successful working of the school, will it be given its due prominence and fulfil the highest expectations of its advocates.—*Sunday-school Times.*

THE GLORY OF THE YEAR.

Is thy life summer passing?
Think not thy joys are o'er!
Thou hast not seen what autumn
For thee may have in store.
Calmer than breezy April,
Cooler than August blaze,
The fairest time of all may be
September's golden days.
Press on, though summer waneth,
And falter not, nor fear,
For God can make the autumn
The glory of the year.

FRANCES R. HAVERGAL.

SCHOLARS' NOTES.

(From Westminster Question Book.)

LESSON V.—JANUARY 31, 1892.

THE SUFFERING SAVIOUR.—Isaiah 53: 1-12.

COMMIT TO MEMORY vs. 3-5.

GOLDEN TEXT.

"The Lord hath laid on him the iniquity of us all."—Isaiah 53: 6.

HOME READINGS.

M. Isa. 53: 1-12.—The Suffering Saviour.
T. Luke 4: 16-32.—Rejected at Nazareth.
W. Matt. 27: 11-26.—Rejected at Jerusalem.
Th. Matt. 27: 27-50.—Crucified and Slain.
F. Matt. 27: 51-66.—Laid in the Tomb.
S. Matt. 28: 1-20.—Raised from the Dead.
S. Acts 1: 1-12.—Received into Heaven.

LESSON PLAN.

I. The Rejected Saviour. vs. 1-3.
II. The Atoning Saviour. vs. 4-6.
III. The Victorious Saviour. vs. 10-12.

TIME.—B.C. 712; Hezekiah king of Judah.

PLACE.—Jerusalem.

OPENING WORDS.

In this lesson we have a vivid picture of the sufferings of our Saviour as seen by the prophet more than seven hundred years before his advent. Remember that these sufferings were endured for us, and that Christ's death is our only hope of life eternal.

HELPS IN STUDYING.

1. *Our report*—the good news of salvation. *The arm of the Lord*—The power of Jehovah. 2. *He*—Messiah, the Saviour. *Shall grow up*—Revised Version, "grew up." *No form*—no beauty. *Comeliness*—personal honor or ornament. *Desire him*—be attracted to him. 3. *We hid*—Revised Version, "And as one from whom men hide their face, he was despised." 4. *He hath borne our griefs*—here follow repeated expressions clearly describing the vicarious sufferings of our Saviour as borne for us. 8. *He was taken from prison and from judgment*—Revised Version, "by oppression and judgment he was taken away." *Who shall declare his generation?*—The American Old Testament Revision Company render this verse thus: "As for his generation, who among them considered that he was cut off out of the land of the living for the transgressions of my people to whom the stroke was due?" 9. *With the rich*—see Matt. 27: 57-60. 10. *He shall prolong his days*—shall rise again after death to an endless life. 11. *The travail of his soul*—the great results of his atoning sacrifice. *By his knowledge*—the knowledge of him as a Saviour. 12. *Therefore*—because of his suffering and death. *Will I divide*—cause him to have such spoils as the mighty have. *Made intercession*—not merely in the restricted sense of prayer for others, but in the wider one of meritorious, prevailing intervention. Rom. 8: 34. The Saviour ever liveth in heaven to make intercession for us.

QUESTIONS.

INTRODUCTORY.—What was the subject of the last lesson? With what danger was Hezekiah threatened? For what did he pray? How was he delivered? Title of this lesson? Golden Text? Lesson Plan? Time? Place? Memory verses?

I. THE REJECTED SAVIOUR. vs. 1-3.—What two questions does the prophet ask? Meaning of these questions? What is foretold of the Saviour? How will men treat him? How was this fulfilled in Jesus? What great privilege did he give those who received him?

II. THE ATONING SAVIOUR. vs. 4-9.—What did the Saviour do for us? How did we esteem him? For what did he suffer? How were our iniquities laid upon him? How did he bear his sufferings? For whom was he stricken? What is said of his burial? Of what was he guiltless? Wherein consisteth Christ's humiliation?

III. THE VICTORIOUS SAVIOUR. vs. 10-12.—What did it please the Lord to do to him? What shall be the fruit of his suffering? How shall those he saves be justified? What fruits of victory shall he gain? Why shall he thus be honored?

PRACTICAL LESSONS LEARNED.

1. Christ loved us and gave himself for us.
2. He bore the penalty of our sins.
3. He ever liveth to make intercession for us.
4. Besides him there is no other Saviour.
5. We should love him who thus loved us.

REVIEW QUESTIONS.

1. What does the prophet predict concerning the Saviour? Ans. He is despised and rejected of men; a man of sorrows and acquainted with grief.

2. For whom *did he suffer*? Ans. He was wounded for our transgressions, he was bruised for our iniquities.

3. How did he bear his sufferings? Ans. He is brought as a lamb to the slaughter, and as a sheep before her shearers is dumb, so he openeth not his mouth.

4. What shall be the Saviour's reward? Ans. He shall see his seed, he shall prolong his days, and the pleasure of the Lord shall prosper in his hand.

LESSON VI.—FEBRUARY 7, 1892.

THE GRACIOUS CALL.—Isaiah 55: 1-13.

COMMIT TO MEMORY vs. 6-8.

GOLDEN TEXT.

"Seek ye the Lord while he may be found, call ye upon him while he is near."—Isaiah 55: 6.

HOME READINGS.

M. Isa. 55: 1-13.—The Gracious Call.
T. Prov. 8: 1-12.—Wisdom's Call.
W. Prov. 9: 1-12.—Wisdom's Feast.
Th. Luke 14: 15-24.—The Great Supper.
F. Matt. 22: 1-14.—The Wedding Feast.
S. John 6: 47-59.—The Bread of Life.
S. John 7: 32-43.—Living Waters.

LESSON PLAN.

I. A Call to Faith. vs. 1-5.
II. A Call to Repentance. vs. 6-9.
III. A Call to Blessing. vs. 10-13.

TIME.—B.C. 712; Hezekiah king of Judah.

PLACE.—Jerusalem.

OPENING WORDS.

The prophet, in our last lesson foretold the great atoning work of the suffering Saviour; in chapter 51 he unfolds the blessed results of those vicarious sufferings, and in our lesson to-day he calls upon all to come and partake of the satisfying blessings which have been provided for them.

HELP IN STUDYING THE LESSON.

1. *Thirsteth*—earnestly desire salvation. *Waters*—living waters of salvation. 2. *Is not bread*—does not satisfy the hunger of the soul. 3. *Incline your ear*—listen and obey. *Your soul shall live*—live a true life for ever. *The sure mercies of David*—the mercies promised to David in the Messiah. See 2 Sam. 7: 8-16. 4. *For a witness*—to testify salvation to the Gentiles. 5. *Thou*—the Messiah. *Shalt call*—in God's kingdom. *Knowest not*—hast not bestowed marks of favor. *Nations that knew not thee*—the Gentiles. *Hath glorified thee*—by making thee the only Saviour. 7. *Abundantly pardon*—literally, "multiply to pardon." 10. *Returneth not thither*—till their work of fertilizing the earth is accomplished. 11. *My word*—everything that God has spoken. *That which I please*—the purpose for which God has sent it. 13. *For a name*—for a perpetual memorial to his glory.

QUESTIONS.

INTRODUCTORY.—What was the subject of the last lesson? Why did Christ suffer and die? Title of this lesson? Golden Text? Lesson Plan? Time? Place? Memory verses?

I. A CALL TO FAITH. vs. 1-5.—Who is the speaker in this lesson? To whom does he call? What is his invitation. On what terms are all these blessings offered? How is the call enforced? What is promised to those who heed the call? What is faith in Jesus Christ? For what is Christ given of God? What is said of his work among the nations?

II. A CALL TO REPENTANCE. vs. 6-9.—When must men seek the Lord? When must they call upon him? What call is next given? What ought every sinner to do? What is repentance unto life? What promise is given to every repenting sinner? What does the Lord say of his thoughts and ways? How do they differ from the thoughts and ways of men?

III. A CALL TO BLESSING. vs. 10-13.—How is God's word like the rain and snow? What shall it accomplish? How is the Word made effectual to salvation? What blessings are promised to the believing, repenting sinner? Under what images is the greatness of these blessings expressed?

PRACTICAL LESSONS LEARNED.

1. God offers salvation to all, "without money and without price."

2. We must repent and return to God if we would have pardon and eternal life.

3. We must show the reality of our repentance by forsaking our sinful ways.

4. God's word shall bear fruit in the salvation of men.

REVIEW QUESTIONS.

1. What is the gracious call of this lesson? Ans. Come to Christ and receive his salvation.

2. What are the wicked exhorted to do? Ans. Let the wicked forsake his way, and the unrighteous man his thoughts; and let him return unto the Lord.

3. What is promised to those who obey the call? Ans. The Lord will have mercy and will abundantly pardon.

4. What does the Lord declare concerning his word? Ans. It shall not return unto me void; it shall prosper in the thing whereto I sent it.

THE HOUSEHOLD.

SOME THINGS AT THE BEGINNING.

A young house-keeper will never do any better than to begin her oversight and care at the very foundation of her house and home—with the cellar, the kitchen, and the pantry. In fact, she may even begin outside the kitchen proper, with—the fastidious reader forgive us—the swill pail, and at a glance see for herself if there is anything there that should have been saved for making over into breakfast or side dishes, or that could better have been put with the soap grease; and she can go further still, and see that the soap grease is saved, and that it is her own perquisite, and not the maid's. She will go into her cellar, and if things are kept there in quantity, she will make sure that they are kept in, the right way; that there is, for instance, a weight on the top of the pork barrel, if she has pork, that will make its contents stay under the brine; she will see if the apples are decaying there, and if so, have them picked over, and the bad ones cast out; she will see if the parsnips are under sand, if the onions are in the dryest corner, if the squashes are where it is dry and just removed from freezing, and if any of the vegetables are sprouting, in which case they must be put in a darker spot and used as soon as possible; she must see that there is some light and a sufficient circulation of air, and that the swinging shelf is well out of the way of the rats, and free from dust and mould. In her pantry she must look to the Indian meal, among other things, and have it stirred now and then to let in the air and keep it from heating, and have a large cool stone in it for the same purpose; she will have her lard and her suet kept in tin vessels instead of in stone or earthen jars; she will look at her bread boxes, and judge if they are aired and sweet, or capable of giving a musty flavor to the bread, and if the fragments and crusts are saved for the various uses to which they can be put; and she will see that all the articles in the place are kept in tight buckets and boxes, and not in the papers in which they came from the grocery. In the kitchen, perhaps, she will be so fortunate as to be able to begin with the beginning, and have her range or cooking stove gradually heated, instead of being warped and cracked by a sudden extreme of temperature; and she will have all her earthen vessels put into cold water and brought to the boil, with a handful of bran thrown in to toughen the glazing, and prevent it from injury by acids. She will have the lamp cloths (if she does not use gas) washed and dried, and not thrown down in that oily condition in which they spontaneously generate fire. She will see that her new knives are not plunged into hot water that will loosen and discolor the handles, and will instruct her maid that when discolored brisk rubbing with sandpaper will do a great deal towards restoring the original appearance of these knife handles; and she will have those that are to be put away wrapped in paper, and not in woollen. She will see that the wooden ware is clean and scalded often; that there is a bountiful supply of holders, rollers, and dish towels; that there should be three brooms, the carpet broom, never to be used on the bare floor; the kitchen broom, never to be used on the steps and out-door walks; the yard broom never to be brought into the house; that the clothes-line is taken down when the wash is brought in, and the clothes-pins gathered and counted at the same time.

In other parts of the house she will look at her rugs and carpets; she will remember that ox-gall, procured of her butcher, if she will give him a vial for it, and used in the proportion of a tablespoonful to a gallon of warm water, a coarse sponge wrung out of it and passed over the carpet's surface after sweeping, will set the colors and keep them bright and fresh much longer than any other treatment; and that, moreover, her carpets should be swept with the large broom as little as possible, as the broom is a great destroyer of the fibre and fabric. Here she will examine her pillows, and if any of them have a disagreeable odor, she will have them emptied, and the feathers treated to a bath of hot soapsuds, and then spread in a sunny place, after which they will return to their original lightness and freshness. If she has inherited old mattresses, or if such have been given to her, she will have them taken out on the piazza, or into some vacant room, and have all the hair picked over and pulled apart, and the cover washed, the hair laid on again in regular layers, and partly tufted into place with a long upholstery needle before closing all the seams of the ticking. She will, in this oversight from the beginning, never allow any marble in her house to be washed with soapsuds, which takes away the gloss, but will run an oiled rag over it, and then rub it smooth and dry and clean with soft cloth or chamois. And, passing by a host of other affairs, she will keep her medicine closet stocked with the few articles necessary for any sudden emergency of cuts, burns, breaks, wounds, or bruises, together with ginger, castor-oil, ammonia, camphor and alcohol. And when all these things are done, she will remember that there are still some others she should not leave undone.—*Harper's Bazar.*

THE BOYS' ROOM.

Consult your boys in the furnishing of their room, and let them help you with it as much as possible; they will take more pride in it if you do.

In most cases you will find they have decided opinions of their own in regard to arrangement of furniture, and a preference for certain colors.

Have everything as strong and substantial as possible. Do not make over a carpet that has become thin and old; it will not pay; rather do without one, and paint the floor some bright, warm tint, not a dark shade, because that will show all the dust-mark of boots.

A boy ought to be consulted, if possible, when selecting wall paper for his room. A pretty, bright paper can be purchased for from twelve to twenty cents per roll. Get some short remnants of Brussels carpet,—they can be purchased very cheaply,—bind and tack them securely in front of bureau, washstand and bed.

With a few suggestions and carpenter's tools a boy can easily construct a cabinet with shelves from a large packing-box, and paint it with the prepared paint that comes ready for use.

Hang a curtain before it of some bright-flowered chintz, and help the boys arrange their treasures in the shape of birds' eggs, geological specimens, different bits of polished wood, postage stamps and coins.

A comfortable arm-chair, with plump, inviting cushions, is appreciated by tired boys as well as tired mothers.

If you expect a boy to be neat and careful of his belongings, you should take pains to see that he is supplied with whatever you can that will help him to be so.

A box for his boots and shoes will be of great assistance, and with a few suggestions he will be able to make it himself, from a grocer's soap box.

The inside should be lined with oilcloth, and the outside painted to match the cabinet. A cushion covered with chintz can be tacked to the cover of the box, which will answer for a seat when closed.

See that there are all the essentials in the way of bathing and preparing his toilet, with a firm, strong brush for clothes, and a set of brushes for blacking boots and shoes.

The furniture should be strong, that is the first requisite, and the room should be made home-like, with white linen covers for bureau and washstand, that can be laundered every week if necessary.

Tack some narrow ribbon criss-cross on the wall by means of large, brass-headed tacks, which will serve to hold photographs and other pictures which boys are so fond of collecting.

Make a pretty pincushion for the bureau, large enough for an abundance of pins, a handkerchief-box, a slipper-case for the wall, with a few other dainty bits of fancy work scattered here and there about the room, which tell their own story of somebody's care and thoughtfulness, as well as love for "the boy."

Scrim curtains, looped back with bands of the same, make pretty, inexpensive window draperies, and launder easily.

Provide one or two hanging book-shelves for books, and photographic copies of some good paintings, simply framed, and hang them where they will be readily seen the first thing in the morning and the last thing at night.

In after years, wherever he may see those pictures, they will bring back his old room to him.

Do not forget to place a Bible on a little stand covered with a pretty, white cloth, and let there be a few loving words on the fly-leaf, written in the mother's hand, to remind him that it was her gift to him.

A boy's room ought to be a bright, cheery spot, to which he can invite his school friends, and to which he can return with pleasure from visits elsewhere.—*Margaret Rexford in the Household.*

"BAKED MEATS"—A CHAPTER ON WARMING OVER.

BY IRENE WIDDEMER HARTT.

As a rule the family of a young housekeeper is small. This makes it more difficult to have a good table. Small roasts or stews are not nearly as good as large ones, and from large ones there is so much left over, which if it is not used, makes the meat too expensive. I have known small families who never had a roast because they would not have a small one, and did not know what to do with what would be left from a large one. There are plenty of very nice things which can be done with these "baked meats." Let us begin with veal. It is nice as a roast, and everyone enjoys it, and are pleased to meet it cut cold for lunch. But still there is some left, and you are morally certain they will not touch it again in that form. You cannot afford to throw it away. I don't know of any one who can afford to waste good food, or who would dare be so wicked. Perhaps you have made salad of it sometimes; I cannot altogether approve of veal salad; it is extremely indigestible, and not unfrequently the cause of illness. A better way is to make a meat cake. Chop the cold veal very fine, season with pepper and salt, a little grated lemon peel or powdered thyme; add an equal quantity of bread crumbs moistened with milk, one beaten egg, and a half cup or more of cream or milk; bake this in a deep buttered dish. It must be solid when it is cold. It is nice then for either tea or lunch, cut in slices. Or the veal can serve for another dinner by making a pie of it. Line a pudding dish with pie-crust, and fill with alternate layers of veal and potatoes, both cut small; season well with butter, pepper and salt, and then put on the top crust and bake.

A nice breakfast dish can be made by chopping the veal very fine, adding a few tablespoons of bread crumbs, two eggs, a little parsley and seasoning. Form this into cakes, dip them into beaten egg, then into bread crumbs, and fry in hot lard. Veal chopped very fine also makes a nice omelet. To six eggs add two tablespoonfuls of chopped veal, season with pepper, salt and parsley, beat well together and fry the same as a plain omelet. The knuckle of veal makes a nice soup stock; add to it a bunch of sweet herbs, a slice of cold veal minced fine, also a slice of bread boiled in a pint of milk; season with salt and pepper, and a little mace.

If you have boiled more eggs for breakfast than were eaten, they need not be wasted. Put them in water again and boil them till solid. They can then be used for salad, or for egg sandwiches. To make the latter, peel the eggs when quite cold, and after taking a little white off each end cut the remainder into four slices; lay these between bread and butter. This is very nice for luncheon or to take on picnics. Boiled ham left over is, of course, nice cut cold. Another way to utilize it, is to chop it very fine, mix with a little mustard and make sandwiches. This is a change from the regulation cold ham, and makes a dish for lunch or supper. A salad can be made of cold ham; make it as you would chicken salad. Then there is ham omelet. Chop the ham very fine, break and beat well enough of eggs to mix with the quantity of ham you have; you can easily judge. Fry as you would any omelet. Cold fried ham can be used in the same manner. An appetizing way to cook this latter is to cut in small dice, pour milk over it, put it in a pan and let it boil, and when boiled thicken the milk by adding a little flour and water, nicely mixed as for gravy.

Cold mutton may be warmed over, and made do very well for a second dinner. Wrap it in thickly buttered paper and put in the oven. Be sure it is covered closely, and let it remain long enough to get hot through, but not to cook. Make a gravy to serve with it. If the joint cannot be covered in the oven, another way is to put it in a pot over the fire without water, but with a dessert spoonful of vinegar. Let it get heated through and serve with vinegar sauce. For a breakfast dish, cut cold mutton into slices, season with cayenne pepper and salt; melt a small piece of butter in a frying pan, and add two blades of mace; turn them once, dust in a little flour, and stir in a half a teacup of jelly; stir till the jelly is melted. Another way to warm over mutton is to cut it, if a loin, into chops, or a leg into thick collops, and dip each into egg well beaten with a tablespoonful of milk, then dip it into very fine bread crumbs and fry quickly in plenty of hot lard. Instead of being breaded, they may be dipped into thick batter and fried. Any kind of meat or chicken may be warmed over in this way.—*Christian at Work.*

RECIPES.

FRIED BREAD.—Cut some bread, which, though stale, is still light and soft, into fingers half an inch thick, dip them in milk, and let them drain for a while; brush them over with the white of an egg, dredge a little flour over them, and fry them in a little hot butter. Pile them, pyramid fashion, in a hot dish, and serve with gravy.

POTATO FARCI.—Pare potatoes and cut them in halves; scoop out the centres in cup shape. Chop some cold cooked meat and mix with a little seasoning and melted butter. Fill the potato cups with this, and bake in the oven till done. The scooped-out potato can be used for mashed potatoes or croquettes.

BAKED POTATOES.—For luncheon or supper hot baked potatoes with smoothly made mild gravy, make a healthful and tempting dish for school children and others. Select potatoes of uniform size and have them thoroughly washed, place in a hot oven and bake one hour.

BUCKWHEAT CAKES.—Take one quart of water, thicken with buckwheat flour, add half a cupful of potato yeast, and a pinch of salt; let it rise before using; add one or two spoonfuls of molasses, and one spoonful of Indian meal which has been wet with hot water. The meal makes the cakes tender and helps to keep them good in shape. When ready to bake, add half a teaspoonful of soda dissolved.

POTTED BEEF.—Boil a beef shank in enough water to cover till very tender, and all the gelatin is extracted, and the meat falling from the bone. Remove all the gristle and bone, and chop the meat very fine. Replace it in the liquor, of which there should be about a quart. Season with salt, pepper, mace, and a dash of cayenne to the taste. Pour in a deep bowl to cool. It will be partly jelly, and solid when cold, and can be cut in slices. It is a delicious relish for lunch or tea. Another way to pot beef is to cut it up small as for a stew, and put into a closely covered pail. Put in one layer at a time, and over it sprinkle a little salt, pepper, ground cloves and cinnamon. So continue until all the meat is used. Pour over all a cupful of vinegar and water, equal parts, to about three pounds of meat. Cover the pail closely, and set it into a kettle of boiling water, and cook slowly for at least four hours. This is a delicious cold relish.

PUZZLES NO. 1.

SCRIPTURE EXERCISE.

1. I have coveted no man's silver, or gold, or apparel.
2. Thou castest off fear and restrainest prayer before God.
3. The soul of my lord shall be bound in the bundle of life.
4. Art thou only a stranger in Jerusalem?
5. Blessed art thou among women.

These verses now look out,
And something read about
Each speaker's name:
Two women here are seen;
Another long has been
Well-known to fame;
The rest are more obscure,
Yet still their names endure
For every age;
One blames a friend for sin;
The other find within
A gospel page.

Initials tell us what, at Jesus' birth,
Came down from God, a gracious gift to earth;
This same, when Jesus bade his last adieu,
He said in love, "I give and leave with you."

ALPHABETICAL PUZZLE.

A is the father of zoology.
B is the Ayrshire poet.
C is the last of the Ptolmies.
D is the laughing philosopher.
E is the Roman Homer.
F is "Poor Richard."
G is the "hero of the red shirt."
H is the poet of the Helots.
I is the friend of Columbus.
J is "Old Hickory."
K is Mohammed's first convert.

SHAKESPERRAN ACROSTIC.

(*Words of equal length.*)

1. A character in *Richard III.* 2. A character in *As You Like It.* 3. A character in *Merchant of Venice.* 4. A character in *The Tempest.* 5. A character in *Hamlet.* 6. A character in *Cymbeline.* 7. A character in *Merchant of Venice.* 8. A character in *Pericles.*

The primals spell the name of one of Shakespeare's heroines.

ANSWERS TO PUZZLES No. 25.

SCRIPTURE ENIGMA.—1 Sam. vi., 6-14.

ENIGMA.—A kite.

DECAPITATION.—Many, any.

PUZZLE.—Unite, untie.

The Family Circle.

CONTENTMENT.

BY M. E. KENNEY.

I ask not that my path should always be
By waters still,
Nor do I pray that thou shouldst shelter me
From every ill.
I am content, dear father, if thy love
Doth choose my way,
If I may walk so closely at thy side
I cannot stray.

I do not pray from sorrow's chastening touch
I may be free,
Nor that thy pitying tenderness would lift
My cross from me;
I know thy wisdom seeth greater gain
In every loss,
And that it is thy love and thought for me
That sends my cross.

When thou wouldst have me serve thee, dearest Lord,
I do not ask
That I may serve as best it pleaseth me,
And choose my task.
Enough it is thou deignest to accept
Service from me.
Whatever task is set by thy dear hand
Shall joyous be.

If thou wouldst have me wait with folded hands
Shall I refuse
Because my love for thee some worthy task
Would gladly choose?
Nay, since thy will is wholly worked in me
And I am thine,
Can I not fully trust myself to thee
And not repine?

—*American Messenger.*

CAPTAIN JANUARY.

(*By Laura E. Richards.*)

CHAPTER VI.—THE SIGNAL.

Quietly passed the days, the weeks, the months, in the lonely tower on the rock fronting the Atlantic surge. Winter came, and folded it in a white mantle, and decked it with frost-jewels. Like a pillar of ice, the tower shone in the keen brilliance of the northern sun; but within was always summer, the summer of perfect peace and contentment. To the child Star, winter was always a season of great delight; for Captain January had little to occupy him out of doors, and could devote much of his time to her. So there were long, delightful "jack-knife times," as Star called them, when the Captain sat fashioning all sorts of wonderful trifles with his magic knife, the child sitting at his elbow and watching him with happy eyes. There were "story times," instituted years before, as soon as Star had learned to sew on patchwork; for as for sewing without a story to listen to, "that," said Star, "is against my nature, Daddy. And you don't want me to do things that are against my nature, do you?" So whenever the squares of gay calico came out, and the golden head bent to and fro over them, like a paradise bird hovering over a bed of gaudy flowers, the story came out too, the fire crackling an accompaniment, sputtering defiance to the wind that whistled outside. Some tale of the southern seas, and the wild tropic islands, of coral reefs and pearl-fisheries, sharks and devil-fish; or else a whaling story, fresh and breezy as the north, full of icebergs, and seal-hunts over the cracking floes, polar bears, and all the wild delights of whale-fishing.

Then, on fine days (and oh, but the days are fine, in these glorious northern winters!) there was much joy to be had out of doors. For there was a spot in the little meadow,—once of gold-flecked emerald, now of spotless pearl,—a spot where the ground "tilted," to use Star's expression, suddenly down to a tiny hollow, where a fairy spring bubbled out of the rock into a fairy lake. In summer, Star rather despised this lake, which was, truth to tell, only twenty feet long and ten feet wide. It was very nice for Imogen to drink from and to stand in on hot days, and it did many lovely things in the way of reflecting blue skies and fleecy clouds and delicate traceries of leaf and bough; but as water, it seemed a very trifling thing to a child who had the whole sweep of the Atlantic to fill her eyes, and who had the breakers for her playfellows and gossips.

But in winter matters were different. All the laughing lips of ripples, all the white tossing crests of waves, must content themselves with the ice-bound rocks, till spring should bring them their child-comrade again; and the little sheet of dark crystal in the hollow of the meadow had things all its own way, and mirrored back her bright face every day. The little red sled, launched at the top of the "tilt," came skimming down the slope, and shot like an arrow over the smooth ice, kept always clear of snow by the Captain's ever-busy hands; or else, when tired of coasting, the child would plant her small feet wide apart, and slide, and run, and slide again, till the pond could have cracked *with pleasure, if such a thing* had been in accordance with its principles.

But of all the joyous hours, none was more welcome to the child than that after the simple supper was cleared away and the room "redded up." Then, while fire and lamplight made their merriest cheer, the table was drawn up to the warmest spot; Star took her place upon Captain January's knee, and the two heads, the silver one and the golden, bent in absorbed interest over "Willum Shakespeare" or the Good Book.

Generally the Captain read aloud, but sometimes they read the parts in turn; and again sometimes the child would break off and recite whole passages alone, with a fire and pathos which might have been that of Maid Marjorie, swaying at her childish will the heart of Sir Walter and his friends. So quietly, in the unbroken peace which love brightened into joy, the winter passed.

At Christmas, they had, as usual, a visit from the faithful Bob, who brought all his many pockets full of candy and oranges and all manner of "truck," as he called it, for Missy Star. Also he brought a letter and a box directed only to "Captain January's Star." The letter, which the child opened with wondering eagerness, being the first she had ever received, was from Mrs. Morton. It was full of tender and loving words, wishes for Christmas cheer and New Year blessing, and with it was a photograph of the beautiful face, with its soft and tender eyes, which Star remembered so well. On the back was written, "For little Star, from Aunt Isabel." And the box? Why that was quite as wonderful in its way. For it contained a beautiful present for the Captain, and oh! oh! such a doll! Other children have seen such dolls, but Star never had; a blue-eyed waxen beauty, with fringed lashes that opened and shut, rose-leafcheeks, and fabulous wealth of silky flaxen curls. Also it had a blue velvet frock, and its underclothing was a wonder to behold; and the box was full of other frocks and garments.

Star took the doll in her arms with delighted awe, and seemed for a few moments absorbed in her new treasure. Presently, however, a shadow crossed her bright face. She glanced at Bob and the Captain, and seeing that they were both engaged in busy talk, she quietly went up to her own room, carrying the doll with her. Here she did a strange thing. She crossed the room to the corner where Mrs. Neptune sat, with her back rigid, protesting against circumstances, and set the radiant stranger down beside her; then, with her hands clasped behind her, and brows bent, she considered the pair long and attentively. Truly they were a strange contrast; the delicate, glowing, velvet-clad doll, and the battered old wooden image, with eyes of snail-shells and hair of brown sea-moss. But when Star had finished her scrutiny, she took the beautiful doll, and buried it deep under velvets and satins at the very bottom of the great chest. This done, she kissed Mrs. Neptune solemnly, and proceeded to adorn her with a gorgeous Eastern scarf, the very gayest her treasure-house could afford.

Meanwhile, in the room below, the talk went on, grave and earnest. Trouble it was, too, on one side; for though the Captain sat quietly in his chair, and spoke in his usual cheerful voice, Bob Peet's rough tones were harsh and broken, and he rose from his place once or twice and moved uneasily about the room.

"Cap'n," he said, "'tan't so. Don't tell me! Strong *man*—hearty—live twenty years yet—like's not thirty! Uncle o'mine—Punksquid—hundred and three—peart's chicken."

Captain Jannary puffed at his pipe in silence for some minutes. "Bob," he said, presently, "it ain't always as it's given to a man to know his time. I've allers thought I should take it particular kind if it 'corded with the Lord's views to let me know when he was ready for me. And now that he has let me know, and moreover has set my mind at ease about the child that it's a pleasure to think of, why, it ain't likely I shall take it anyway but kind. Thankin' you all the same, Bob, as have been a good mate to me, and as I sha'n't forget wherever I am. But see now!" he added hastily, hearing a sound in the room above. "You understand, Bob? I h'ist that signal, as it might be to-morrow, and I keep her flyin' night and day. And so long as you see her flyin', you says, 'Cap'n's all right so far!' you says. But you keep a sharp lookout; and if some mornin' you don't see her, you says, 'Sailin' orders!' you says, and then you calls Cap'n Nazro, as never failed in a kindness yet, nor ain't likely to, to take the wheel, and you put for this island. And Cap'n Nazro he takes the "Huntress" in, and then goes straightway and sends a telegraft to the lady and gentleman, sayin' as Cap'n January has sailin' orders, and they please to come and take the child, as lawfully to them belongs. And you, Bob—" the old man's steady voice faltered a little, as he laid his hand on the other's arm—"You'll *do* all you can, well I know. For she'll take it hard, ye see. She has that depth o' love in her little heart, and never nobody to love 'cept me since she were a baby, that she'll take it cruel hard. But the Lord'll have her in mind! and you'll stand by, Bob, and bear a hand till the lady and gentleman come."

Bob Peet held out his honest brown hand, and the two men shook hands with a certain solemnity; but before either of them could speak again, Star came singing down the stairs, and summoned them both to play at ball with the oranges.

And so it came to pass that a little blue signal was hoisted at the top of the white tower, and fluttered there bravely in sun and wind. And every time the "Huntress" went thundering by (which was twice a week at this season instead of every day), Bob Peet looked out anxiously from the wheelhouse window, and seeing the little banner, took cheer, and rubbed his hands and said, "Cap'n's all right so far!"

And Captain January, whenever there came the clutch and stab at his heart, and the struggle for breath, which he had felt for the first time that September day (but ah! how many times since, and with what increasing persistence!) would creep to the stairway beside which hung the signal lines, and lay his hand on them, and wait; then, when the spasm passed, would pass his hand across his face and humbly say. "Whenever it seems right, Lord! A step nearer! and thou havin' the child in mind," and so go cheerfully about his work again.

There were not many more steps to take. Spring came, and the little meadow was green again. Robins and blue-birds fluttered above the great pine-tree, and swallows built their nests under the eaves of the tower itself. The child Star sang with the birds, and danced with the dancing leaves, all unconscious of what was coming; but the old Captain's steps grew slower and heavier, day by day, and the cheery voice grew feeble, and lost its hearty ring, though never its cheeriness. "I'll set here in the porch, Jewel Bright," he would say, when the child begged him to come for a scramble on the rocks. "I think I'll jest set here, where I can see ye an' hear to ye. I'm gettin' lazy, Star Bright; that's the truth. Yer old Daddy's gettin' lazy, and its comf'tabler sittin' here in the sun, than scramblin' round the rocks."

And Star would fling herself on his neck, and scold and caress him, and then go off with a half-sense of disappointment to her play. Very, very careful Captain January had to be, lest the child should suspect that which he was determined to keep from her to the last. Sometimes he half thought she must suspect, so tender was she in these days; so thoughtful, so mindful of his lightest wish. But "'tis only the woman growin' up in her," he decided; and looking back, he remembered that she had not once broken his pipe (as she had been used to do every three or four weeks, in her sudden rages) since last September.

At last there came a day when the Captain did not even go out to the porch. It was a lovely May morning, bright and soft, with wreaths of silvery fog floating up from the blue water, and much sweet sound of singing birds and lapping waves in the air. Making some pretence of work at his carpenter's bench, the old man sent Star out to loose the cow and lead her to the water; and when she was gone, he tottered to his old chair and *sat* down heavily. There was no pain now, only a strange numbness, a creeping coldness, a ringing in the ears. If it might "seem right" to let him wait till the "Huntress" came by! "It's nearly time," he said half aloud. "Nearly time, and 'twould be easier for the child."

At this moment, through the open doorway, came the silver sound of Star's voice. "But I don't think there can be any harm in my just telling you a *little* about it, Imogen. And the floor is the paved work of a sapphire; sapphire is a stone, just like the water over there, in the bluest place, and oh! so clear and bright, Daddy says. He saw one once. And there will be most beautiful music, Imogen. Oh! you can't think what lovely music Daddy Captain will play on a harp. I know he will, 'cause he will be a spirit of just men made perfect; and that will be a great thing, Imogen; for he has never known how to play on anything before; and—" Ah! the sweet, childish prattle; but already it was growing faint upon the old man's ears.

"Star Bright!" he called; and the dancing shape came flying, and stood on tiptoe in the doorway. Steady, now, January! keep your voice steady, if there is any will left in you. Keep your head turned a little away, lest there be any change in your face, yet not turned enough to make her wonder. "Star Bright," said Captain January, "it's about—time—for the "Huntress"—to be along, isn't it?"

"Yes, Daddy," said the child; "she's just in sight now. Shall I go down and wave to Bob as he goes by?"

"Yes, Honeysuckle," said the old man. "And—and wait to see if he come ashore. I think—likely—Bob'll come ashore to-day. He was goin' to bring—somethin'—for me. Is there a squall comin' up, Jewel Bright?"

"A squall, Daddy?" said the child, wondering. "Why, there isn't a cloud in the sky."

"Jes' so!" said Captain January. "I—only jist asked. Good by, Star Bright."

"Dear Daddy! Good by!" cried the child, and she sped away over the rocks.

So dark! and not a cloud in the sky. If he might have looked once more, with those fast-darkening eyes, at the little blessed face which held all the world in it! If he could call her back now, and kiss her once more, and hold her little hand—No! no! steady, January! steady now, and stand by!

Quite dark now. But that does not matter. No need of light for what is now to be done. Slowly the old man raises himself; feels for the wall, creeps along beside it. Here is the line. Is there any strength left in that benumbed arm? Yes! "For the child, dear Lord, and thou helpin' me, as ever has been!"

Down comes the signal, and the old man creeps back to his chair again, and composes himself decently, with reverent, folded hands and head bowed in waiting. "'He holdeth the waters in the hollow of his hand. Behold, he taketh up the isles as a very little thing.' Amen! so be it!"

Wave, little Star! wave your little blue apron from the rocks, and laugh and clap your hands for pleasure, as the ripples from the steamer's bow break in snowy foam at your feet. Bend to your oar, Bob Peet, and send your little black boat flying over the water as she never flew before! and press on, friendly "Huntress," to your port, whence the winged message may speed on its way to the stately lady with the tender eyes, who waits for tidings in her distant home. For Captain January's last voyage is over, and he is already in the haven where he would be.

THE END.

OF ALL THE MEANS placed by Providence within our reach, whereby we may lead souls to him, there is one more blessed than all others—intercessory prayer.—*From "Gold Dust."*

A BIT OF THE HOLY LAND.

A most interesting record of travel in Palestine is just now being published in the *Sunday at Home*.

Many people, says Adelia Gates, the writer, go to the Holy Land, and many more would go there but for the great expense of the journey. As ordinarily undertaken, the journey to Jerusalem is very expensive, and it is also very disappointing by reason of the haste with which the traveller is hustled from one place to another. Twenty minutes for seeing the Dead Sea is a frequent allowance, and the time for visiting other places is doled out in the same parsimonious fashion. This is the system of the dragoman: and most people travel in charge of one of these chartered conductors, being afraid to trust themselves to the mercies of natives whose language they cannot speak.

The writer of these "Wanderings" travelled all through the Holy Land without a dragoman. She went where she liked and stayed as long as she liked, therefore she saw more than most travellers see. There is yet another way in which she differs from most travellers in the Holy Land: she is, emphatically, a poor pilgrim, and accomplishes her many wanderings on an income that would hardly suffice to live on at home with more than the minimum of comfort. As these letters form the simple record of how she lived day after day, and where she went, and how she travelled, they may help the reader to understand how much may be accomplished on a very slender income. This journey through the Holy Land was merely the appendix, as it were, of a still more difficult undertaking, namely, a journey through the Northern Sahara which had just been brought to a successful conclusion, and the record of which, under the title of "The Chronicles of the Sid," may now be read in the *Leisure Hour*.

How can I fitly describe the terrible landing at Jaffa! Sandbanks forbid a steamer to approach the shore, she must anchor in the roads a half mile distant, and sometimes in rough weather it is impossible to discharge passengers. A gentleman told me that he was once obliged to go on with his family and household goods to Beyrout and bring them by land from there to Jerusalem, with much hardship and great expense.

The last boat before this, was forced to carry her eighty passengers on to Haifa, a nearer port than Beyrout.

An old lady whom I had promised to see after, I found in woful plight. She had been sea-sick, she had been tossed hither and thither, she had been thrown from her improvised bed among the baggage against the corner of a chest, getting a bad bruise on the face. I bathed it and court-plastered it; I brought her a cup of hot coffee and comforted her as well as I could, poor soul, and stayed by her in the dreadful trial of being got into one of the row-boats that ply between ship and shore.

Having brought my trifling luggage on deck, I ran back for a parcel, and returning a moment later, behold, my umbrella was gone! The steward said, "Ah, it is snatched up by some one of those thievish Arabs who crowd on board to get a job, and it's not the least use trying to recover it. One must keep his eyes on his baggage every minute."

I remained a long time watching the singular and exciting scene as the boats with immense difficulty, and often after many fruitless attempts, secured each its complement of goods and men. Seizing the moment when after much coquetting a friendly wave heaved the boat against the steamer's side, two sure-eyed sailors drop a cask, or bag, or man, into the boat, or rather into the outstretched arms of two equally sure-eyed men below. Not a moment too late must it be, for sometimes the boat rolls quickly back from the ship as if conscious of having committed a misdemeanor.

Sometimes, but rarely, the miscalculation of an instant, or an unexpected vicious lurch on the part of the boat, causes the plunge of a package into the sea. It has happened, too, that a nervous woman, appalled by the angry waves and tossing boat, away below, has at the critical moment refused to let herself fall from the four strong arms that held her, into the four strong arms awaiting her, and clutching at a rope or a rail or any near object, has risked or met a catastrophe.

I suppose it was to quiet our fears and inspire us with courage that the bystanders told us of a lady who was so badly hurt that they feared for her life, and of another, who, renewing for an instant her clutch just as she was let drop, was a moment too late in falling, and somehow missing the arms as the boat swerved off, fell across the gunwale and broke her back. If one can cast out fear and yield oneself utterly, there is no danger; but a weak woman may be excused if in such an ordeal her courage and self-control fail. It is like the moment before a tooth is drawn, only there is much more at stake. At last "we all got safe to land" and safe through the custom-house; and I would go through it all again, if so I might again see Palestine. There is little in Jaffa to detain one, and a day sufficed me. It is finely situated, and is beautiful as seen from the sea. The site of the house of Simon the Tanner is pointed out, and some old walls are shown as the remains of the house of Tabitha; but their claim is discredited by all intelligent Bible students. The surrounding country, though superficially sandy, is at a very slight depth exceedingly fertile, with plenty of water available. The orange culture, begun fifty years ago, has had a very considerable extension, and forms one of the charms, as well as the chief source of wealth of the place.

I would go leisurely to Jerusalem. I would not willingly pay the extortionate price demanded by my landlord for a seat in the carriage which was to go from the hotel next morning, and in which I should be the only passenger. Had he not asked me ten-pence for a little cup of milk, and other things in proportion? No, I would look further. Strolling through the town I asked my way of a kind-faced little man in the doorway of a little workshop. Then I asked for a glass of water, and then I asked about the best way of getting to Jerusalem, at the same time naming the price asked by my host.

"Oh, that is tourist price, we common folks do not pay that, we go in another fashion."

"Then will you kindly put me in the way of going in your fashion? He would; and after a little more on that subject, we fell a-talking about the country and the government, this last named impersonality as usual faring badly at our hands.

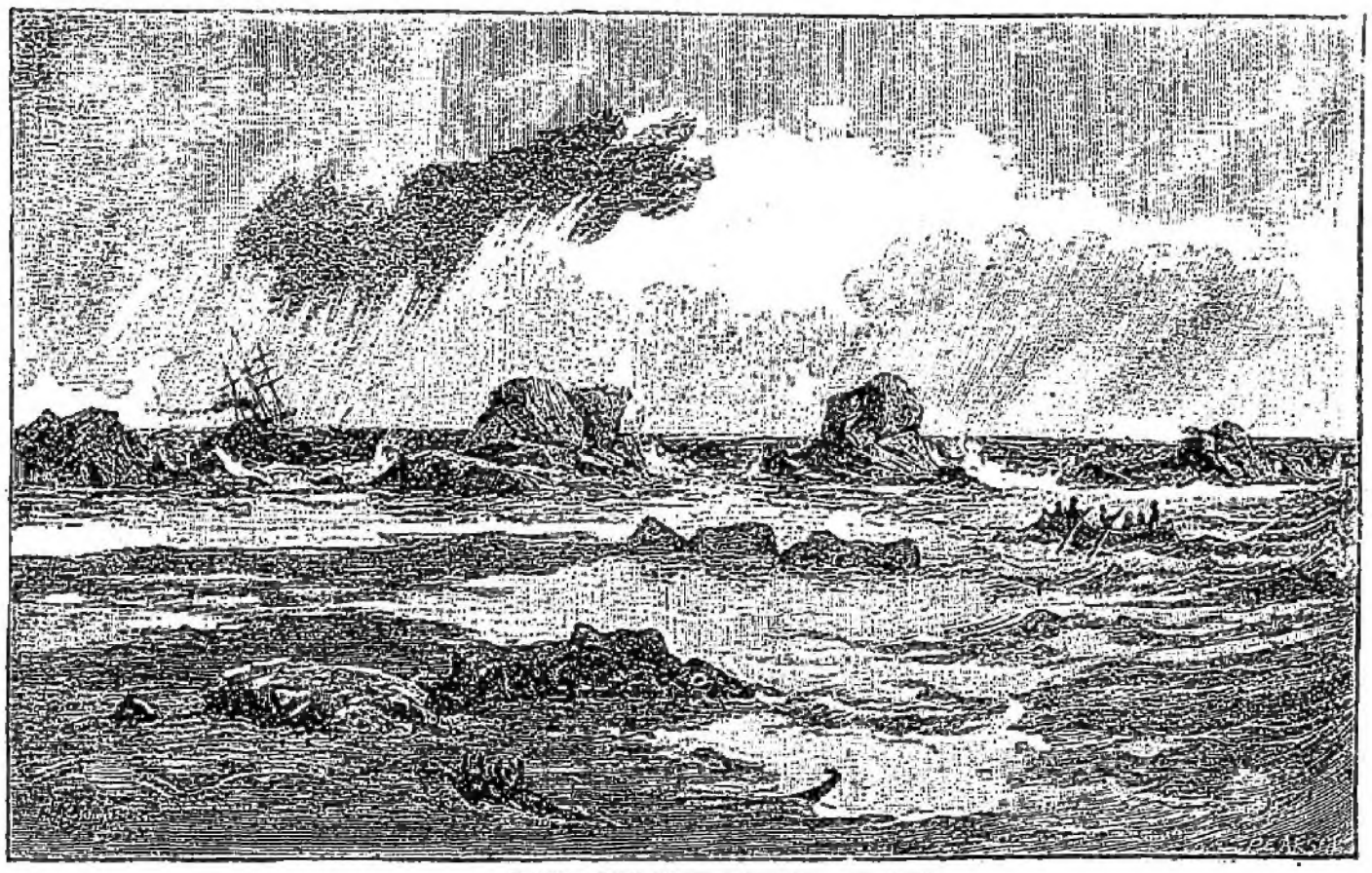
The little man directed me to an innkeeper.

"Tell him," he said, "to send you to Jerusalem as we go, and for the price we pay."

I found the inn-keeper without any difficulty, stated my wish, and he said it was quite practicable. Then we also dropped easily into conversation about various things. Indeed, I always find that most persons are as willing to answer inquiries kindly put in regard to their country, as I am glad to make them.

When at last I rose, saying: "Then you can help me?" he replied cordially, "I can and I will." He accompanied me to the right place, from which the plainer, cheaper vehicles of the common people started, spoke a little with one of the men, engaged me a seat for the next day at a very moderate price, then with friendly wishes went his way, and I went mine.

In the early fresh morning I set off. Though not smart, the carriage was sufficiently comfortable. I was sheltered from the sun, I had a good view, and the passengers were plain, civil-spoken men. One was an Arab, in a dress such as was probably worn by his countrymen in old Bible times.



INSIDE THE REEF OF ROCKS AT JAFFA.

"Why do you Europeans change the style of your dress so often?" an Arab once asked me. "When you have a good and comfortable fashion why do you not keep it?"

And I could not answer him.

With the man next me I had much interesting conversation. He went all the way to Jerusalem, twelve or thirteen hours; for they prefer to measure distance by hours rather than by miles, as is common in many other countries. He thought that with a half-way honest government there would be a more ready investment of capital, that the whole region around Jaffa would then become richly productive, and that irrigation would render fertile much land that now is valueless. Jaffa already possesses about 350 orange orchards of from 2,000 to 3,000 trees each, the fruit of which is highly esteemed, and is exported to Egypt, Turkey and Europe.

The plain of Sharon, stretching far along the coast northward, is, like the country around Jaffa, sandy on the surface, but rich below, with plenty of water that, by simple and inexpensive means, might be easily distributed. Irrigation could soon make this whole plain of Sharon again blossom as the rose. Many hopeful hearts feel the time near when the word of the Lord shall be fulfilled. "Sharon shall be a fold of flocks, and the valley of Achor a place for the herd to lie down in, for my people that have sought me." It is thought that a good part for Jaffa could be made a little way to the north, and doubtless the railway already finished from Jaffa to Jerusalem will be followed by others; for the stream of travel and of immigration is constantly increasing.

But will not they who love the Palestine of the old Past feel a tender regret in exchanging the present modes of travel for the smoky, noisy iron horse, and the rapid diligence? Doubtless, multitudes of tourists will be glad thus to avoid much delay and fatigue; but there does exist a type of traveller who loves to go leisurely, reconstructing mentally that Past, eating and sleeping like the common people, and living as far as possible their life, the life pictured in the Old and New Testaments—a life that as yet remains nearly what it was thousands of years ago.

This aspect of Palestine life is not for those who love to go to first-class hotels and to have everything on the journey arranged by the dragoman, with an army of baggage mules to convey tents, folding-beds, folding-chairs, folding-tables, mattrasses, crockery, dainty food, and all that is necessary to make them elegantly comfortable.

Whirled along by rail, and crowded into diligences, I for one could never have seen and felt Palestine as I did; never have brought away the delightful pictures of the daily life of the common people, that now fill so large a place in my mental gallery.

WORK AND WAGES.

At the recent meeting of the learned British Association there was a discussion of the difference in the wages of men and women doing the same work. The conclusion seemed to be that there is no great difference, after all, and therefore not much to discuss.

The same matter is debated now and then in this country. All right-thinking people will agree that a woman is entitled to the pay which a man would receive for the same work, equally well done.

Nevertheless, this does not mean that Alice Jones, who is a clerk in Roupert & Co.'s dry goods store, and who stands at the counter beside James Stark, should have the same weekly wages as he. It is the universal custom to put more work and heavier upon the men, and usually the greater responsibility is laid on them.

Moreover, it is a matter of common experience that men are less frequently compelled by illness to be absent from their work, and their power of endurance is, in general, greater.

This is not all, for while it takes one man to marry one woman, the man usually continues at his employment after marriage, while the woman does not. It follows that a man, being more likely to stay and to learn the ins and outs of trade, is worth more to an employer than a woman who may marry and leave him at any time.

It follows also that in any employment where men and women are at work together, the average experience of the men is the greater.

These facts do not excuse unfairness in giving wages to men and women, but they do explain away some things that seem unfair, and that turn out not to be so.—*Youth's Companion.*

A YEAR'S EXPERIMENTS.

It may not be generally known that Dr. Benjamin Richardson was a drinker when the London physicians assigned to him the task of investigating the action of alcohol on living tissues. He took a year for his experiments, and came out a total abstainer; his science had controlled his conscience and controlled his life.

A Little Journey.
By
Elizabeth Johnson
The road that leads to Lapland
His dear and distant home;
The little traveller took, when first
He started out to Rome
By
By both his journey led him,
And through Cologne's sweet air
And all across Milk River —
A pleasant stream and fair.
We passed the Sandwich Islands
And Turkey on his way
And tarried of the table-lands
Where China glistening lay
By many Falls he travelled;
Around Cape Trot he pressed;
And then to Lapland hurried on,
And paused awhile to rest.
Set from this happy harbor
Where Peace and Concord flow,
To other lands — not Chili nor —
His tireless feet would go
By Little Rock and Sing-Sing
And Rheims he voyages on,
And rounding Cape Farewell at last,
From mortal sight is gone.
And though in some far country
He travels still mayhap,
The lands where now his journey lies
Are not upon the map.

OUR SMALLEST SERVANTS.

We are so much accustomed to regard bacteria as the most dangerous foes of humanity that the attempt to demonstrate their utility and essential importance may seem almost paradoxical. Nevertheless, it would be as unjust to condemn the whole class for the diseases engendered by a few as to condemn humanity for the offences of its criminals.

As a matter of fact, the services of bacteria in the natural economy of the earth are so important that disease germs may fairly be regarded as isolated, scattered bands. The elimination of the bacteria from the earth would be immediately followed by our downfall. Refuse would accumulate in piles mountains high, while the plants which depend upon it for the greater portion of their sustenance would perish in sight of plenty, from the want of microbes to convert it into assimilable food. Every trace of organic matter is greedily seized on by the microbes, which convert it into plant food, or decompose it into its original elements, and thus render the earth continuously habitable for man and beast. These bacteria are so small that a million of them may constitute a mass hardly visible to the naked eye; nevertheless, such is their capacity for increase, under favorable conditions, that the progeny of a single bacterium, if it could multiply unchecked for fifteen days, would constitute a mass exceeding the cubic contents of the ocean. Their increase is arrested only by failure of food supply; they are consequently always in sufficient numbers for the conversion of all the dead organic matter of the earth into food substance for living plants. The manure which the farmer spreads on his fields contains billions of these industrious laborers, all actively engaged in converting the organic elements into plant food, and even in rendering the inorganic substances (lime, potash, phosphates, etc.) assimilable. The most important soil constituents for the farmers are the nitrogenous compounds, the presence of which in manure constitute its prime value as a fertilizer. Plants cannot take nitrogen from the air—they must take it up by their roots from the soil. But nitrogen is not a proper constituent of soils. In a state of nature the soil gets a supply from the substance of the plants and animals that die on its surface, but grain crops soon exhaust this natural supply, and the fertility of the soil can only be maintained by the addition of nitrogenous substance, which the bacteria, in pursuit of their own well-being, convert into assimilable plant food.

But experience has taught the farmer that while grain and root crops exhaust the soil of its nitrogen, beans, peas, and other leguminous plants, so far from exhausting, add to its supply, thus rendering possible a high cultivation by rotation of crops, with considerable economy of manure. But these leguminous plants are more capable than others of drawing their nitrogenous supply from the atmosphere; modern investigation has demonstrated that it is the work of bacteria which finds sustenance and habitation in the roots of the leguminous plants, where they multiply from generation to generation, repaying the service by dying there and sacrificing to the plant all the nitrogen they have taken from the atmosphere, in assimilable form. The little swellings on the roots which constitute at once their dwelling place, laboratory, and tomb, may be readily recognized on removing an acacia, or mimosa, or other leguminous plant from the pot in which it is grown.

Not less beneficial are the bacteria as purifiers of water. If a vessel of water containing animal or vegetable refuse is allowed to stand in the open air, the fluid gradually clears until every particle of dead organic matter is consumed, when the bacteria cease their activity and sink to the bottom. The same thing occurs on the great scale in nature; the Seine, which at Paris receives an enormous amount of refuse, is clear and pure at seventy kilometres down stream. The bacteria have consumed the refuse. The Elbe, the receptacle of the refuse from so many cities, is drinkable at Hamburg from the same cause.

The lichens and algæ, insignificant and lowly as they seem, play a very important role in the economy of nature. They sink into insignificance when the conditions are favorable to the support of higher vegetation, but the task is theirs to create the conditions necessary to the growth of higher plants. Ascend the mountains, or penetrate into high latitudes to the boundaries of eternal snow, and every rock is found covered with lichens, the support of the reindeer, and commonly, but improperly, called reindeer moss. With its slender filaments it mines a foothold for itself in the solid rock; the carbonic acid which it secretes, being dissolved in water, sets free the silicic acid, and in this way decomposes granite, gneiss, micaceous shale, etc. —*Eduard Strasburger, in Deutsche Rundschau, Berlin.*

BE COURTEOUS, BOYS.

"I treat him as well as he treats me," said Hal.

His mother had just reproached him because he did not attempt to amuse or entertain a boy friend who had gone home.

"I often go in there, and he doesn't notice me," said Hal again.

"Do you enjoy that?"

"Oh, I don't mind! I don't stay long."

"I should call myself a very selfish person if friends came to see me and I should pay no attention to them."

"Well, that's different; you're grown up."

"Then you really think that politeness and courtesy are not needed among boys?"

Hal, thus pressed, said he didn't exactly mean that; but his father, who had listened, now spoke:

"A boy or a man who measures his treatment of others by their treatment of him, has no character of his own. He will never be kind, or generous, or Christian. If he is ever to be a gentleman, he will be so in spite of all boorishness of others. If he is to be noble, no other boy's meanness will change his nature." And very earnestly the father added: "Remember this, my boy, you lower your own self every time you are guilty of an unworthy action because some one else is. Be true to your best self, and no boy can drag you down." —*Unidentified.*

PERFECT THROUGH SUFFERING.

Frank Carr was a young clergyman. He was well educated, sincere, and anxious to do his duty. He called regularly upon the members of his congregation; he studied hard, and gave much thought and time to the composition of his sermons.

At the end of two years, however, he felt that neither his visits nor his sermons had brought him closer to his people. His own life had been prosperous and happy, and when death or trouble came to a house and he tried to give consolation, he felt awkward and out of place. His flock admired his sermons, and boasted of them as fine literary efforts, but he did not know that any word which he had spoken had really touched or elevated a human soul. He was young; his life was full and complete; he had a wife and child whom he loved, a happy home and hosts of friends.

Suddenly, as lightning out of a clear sky, a blow fell upon him. His child, a boy two years old, sickened and died in a few hours. The young minister was stunned. His grief seemed to him so great that none had ever before been like it in the world. Underneath this grief was a sullen amazement, a feeling almost of rage against God. As he stood over the little grave he cried out, "Why—why has he done this thing? The boy was innocent. He would have been a useful and good man. We were so happy in our home with him, and it was a pure, noble happiness. Now the child lies there dead, and we are wretched. Why is this?"

As time passed he grew stronger, and was able once more to preach to his flock. But it seemed as if he spoke with a new voice and a new language. He had been down into the depths, and there had stood face to face with God. In the darkness of his great grief he had groped for the hand of his Heavenly Father, and had found it. His words moved the people with a great power. No man heard him speak that day who did not feel that he had helped his soul. A year later Mr. Carr left the village, and did not return to it until he was a gray-haired old man. In the meantime he had become one of the most helpful ministers who ever worked among the poor and criminal classes. "He does not stand upon a height and lecture us," said a convict in a prison which he visited. "He leads us to God. He, too, has suffered and been tempted."

When he came back and stood again over the grave of his first-born son, for whom he had never ceased to mourn, he knew what had softened his nature and brought him close to his fellows. "I know now why this grief *came to me*," he said, as he turned away.

However young we may be, into every life comes some time the question: "Why has God sent me this pain?" Earlier or later we read the answer in our own lives or the lives of those whom we have influenced, for ill or for good. We have been his tool or weapon, and have been seasoned in the fire for use.—*Youth's Companion.*

A TRUE STORY.

One of our missionaries in Japan sends us the following interesting story:

Some time ago a gentleman placed his daughter in one of our mission schools for girls. She became a Christian. Again and again she asked her parents' consent to her baptism, but the answer was always the same, she must not be a Christian. The Emperor was still an adherent of the old religions, and until he changed his religion it was disloyal for any one else to change.

Not many months ago she was taken from our school and placed in one where the opposition to Christianity is strong, indeed is part of the policy of the school.

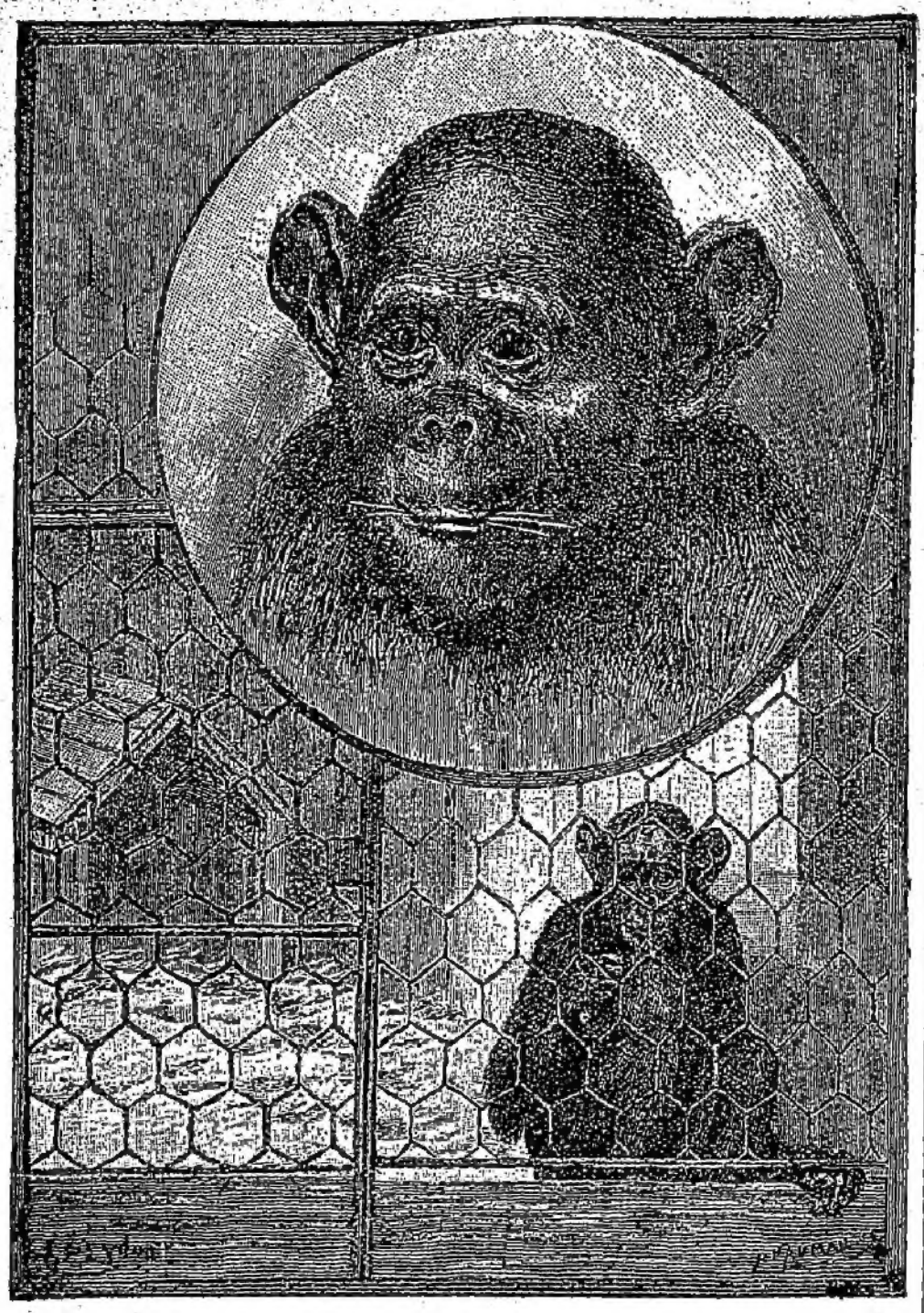
She left our school with a heavy but resolute heart. Other Christian girls had entered that school, and had been ashamed of their Lord and had grown cold in their love and faith. She must do better than they. She must not only preserve her own spiritual life, but live so that those weak ones might be strengthened, and perhaps some others led to Christ. Extracts from some of her letters will show how she is succeeding. She says: "They (the non-Christian students of the school) asked me many questions, and at last they asked me about the religious meetings in the mission school. I told them about the prayer-meeting, the Wednesday meeting and the class meeting. They listened very seriously, but paid particular attention to what I said about the class-meeting. I told them we were keeping a Bible motto every week, and they said that was very good. To-day when I went to school they asked me what our motto is for this week. I told them 'Love seeketh not her own.' One of them said she would try to keep it this week."

In another letter she says: "One more girl is keeping the motto. They told me that several times it had helped them to be unselfish. They also told me that they had read a Bible yesterday in a small room where no one could come." One week the motto was, "Love thinketh no evil." They said it was too difficult to keep, but she suggested that they should make it "speaketh no evil."

Week after week they ask for the new motto, and thus among a class of people, perhaps the most difficult to reach in Japan, week by week the seed of Bible words is being sown by a child—she is only sixteen. What will the harvest be? Besides this, two of those Christians who had grown cold and almost lifeless, have been revived by her words and example into new earnestness.

In another letter she says: "I often feel very lonely, but Christ and the Bible are my two friends. I tell him every little worry and he has helped me many times." Truly out of the mouths of babes he has perfected praise.—*Christian Guardian.*

THERE ARE MANY we cannot reach with our gifts, perhaps not with our counsels; prayers may serve them better.—*H. W. Warren, D.D.*



SALLY, THE CHIMPANZEE AT THE ZOOLOGICAL GARDENS.

THE CHIMPANZEE AT THE ZOOLOGICAL GARDENS.

It is doubtful whether any of the animals exhibited from time to time in our zoological collections are viewed with as much interest as those that constitute the nearest of our poor relations, the anthropoid or humanlike apes, of which three distinct groups are known—the ourang-outans from Borneo, the gibbons from tropical Asia, and the gorillas and the chimpanzees from Western Africa. These are the most highly developed of all the animal creation, and approach the nearest to man. Unfortunately, they are all short-lived in our temperate climate, seldom living a sufficient time for their habits and instincts to be accurately studied. One remarkable exception, however, has been long familiar to the London public. Sally, the bald-headed chimpanzee, that was recently living in the Zoological Gardens, was a well-known figure in London life. When Sally arrived at the gardens, in October 1883, she was quite an infant, not having shed her first teeth; probably she might have been between two and three years old. As soon as she arrived, it was seen that she differed from the ordinary chimpanzees, of which, since their commencement, more than thirty specimens have been exhibited in the gardens, all of which, unfortunately, were short-lived. The most important differences between Sally and her predecessors were that her face was almost black in color, that her head was destitute of hair, whereas in the ordinary chimpanzee the hair divides on the top of the head, falling to each side in tolerable abundance, and, again, her ears were very much larger. Hence Sally was regarded as the type of a new species, differing from the old one, and was called the bald chimpanzee, or, in scientific language, *Anthropopithecus calvus*. No sooner was this young creature located in the gardens than she showed a disposition to live upon animal food. If a small bird were let fly in her cage, she would adroitly catch it as it flew past her, bite off the head and eat it, skin and feathers included. This food seemed so natural to her that for many months Sally was supplied with a young pigeon, which she killed and ate every night. After a time she became more civilized, when cooked mutton and beef-tea were substituted for this part of her dietary. The location of the Zoological Gardens close to the Regent's Canal is attended with one very serious inconvenience. The rats from the canal cannot be kept out. They are present in every part of the gardens to which they can get access, in spite of the numbers that have been constantly destroyed. To Sally, however, they were by no means an inconvenience. If a rat entered her cage at night it was invariably caught and killed by her. In these respects Sally differed very much from the ordinary chimpanzee, which Mr. Bartlett informs us he has never known to eat any kind of flesh, and he has had a large number of specimens under his care during the many years that he has been superintendent of the gardens. These were not the only distinctions that characterized Sally. She was undoubtedly far more intelligent than any of the larger apes that have ever before been kept in confinement. She was affectionate, hardly ever tired of romping and playing with her keeper, generally in a very good temper, although she occasionally behaved like a spoiled child. Sally was capable of being taught many things that showed considerable thought and a great amount of intelligence. She always obeyed her keeper, and was trained to such an extent that she could even count to a considerable number. The keeper had taught her to give the exact number of straws asked for, which she would select, pick up, arrange in a little bundle, and hand to him, whether she was told to select three, four, five, six, or seven; it was even said that she could go on to a greater number. She always recognized those who made her acquaintance, and paid marked attention and evinced an extraordinary amount of interest in colored people, whom she would receive with a loud cry, which sounded much like the syllables "bun, bun, bun."

The chimpanzee may be regarded as the animal which approaches most nearly to man. Although smaller than the full-grown gorilla, there is not the great disparity in the size or structure of the two sexes that there is in that animal. When the chimpanzee stands upright the arms reach only a short distance below the knees, being in this respect more humanlike than any other ape. The face is furnished with distinct whiskers, eyebrows, and eyelashes. The forehead is more vaulted, and the brain, as might be expected from the intelligence of the animal, larger than in any other ape. The tusks are much smaller, and the whole of the teeth make a close approximation to those of the human species. The comparatively long life which Sally had passed in confinement is doubtless due to the conditions under which she was placed. Instead of being put in the crowded monkey-house, she had a large room very much to herself, where the air was comparatively pure, and she was not irritated by the presence of other animals of the same kind. Her death was due to a complication of diseases. She did not die of that one which is generally, but erroneously, supposed to cause the death of the majority of monkeys—namely, consumption.

As, perhaps, the nearest approach to humanity that has ever been seen or studied in an adult state in this country, Sally excited very great and general interest. Her portrait was repeatedly published, photographs of her were constantly taken, experiments as to her intelligence were made by scientific investigators, and she was taught to perform actions, to obey orders, as we have said before, to count straws, by her keeper at the suggestion of those who endeavored to investigate her mental condition.

The death of Sally is a great loss to the gardens, and is one not likely to be supplied. No instances whatever are known of any of the larger apes attaining any age approaching to that which she had reached. The extraordinary human expression of her face was partly disguised by the enormous size of her ears. If, however, one of her portraits were taken, and a piece of paper or muslin, cut into the likeness of a mob-cap, were placed around her face, her resemblance to a human being became at once wonderfully manifest, and we have seen many types of humanity that do not look as elevated in the scale of creation as the much lamented creature which has now passed away.—*W. B. Tegetmeier, in Illustrated London News.*

REASONS FOR NOT GOING TO CHURCH.

There are excuses and excuses, and explanations and explanations, and reasons and reasons for not attending church, a few of which Burdette "shows up" in his characteristic way:—

So you are not going to church this morning, my son?

Ah, yes; I see. "The music is not good;" that's a pity; that's what you go to church for, to hear the music." And the less we pay the better music we demand.

"And the pews are not comfortable;" that's too bad—the Sabbath is a day of rest, and we go to church for repose. The less work we do during the week, the more rest we clamor for on Sunday.

"The church is so far away; it is too far to walk, and you detest riding in a street-car, and they're always crowded on Sunday." That is, indeed, distressing: sometimes, when I think how much farther away heaven is than the church, and that there are no conveyances on the road of any description, I wonder how some of us are going to get there.

"And the sermon is so long, always." All these things are indeed to be regretted. I would regret them more sincerely, my boy, did I not know that you will often squeeze into a stuffed street car with a hundred other men, breathing an incense of whiskey, beer and tobacco, and hang on a strap by your eyelids for two miles, then pay fifty cents for the privilege of sitting on a rough plank in the broiling sun for two hours longer, while in the intervals of the game a scratch band will blow discordant thunder out of a dozen misfit horns right in your very ears, and come home to talk the rest of the family into a state of aural paralysis about the "dandiest game you ever saw played on that ground."

Ah, my boy, you see what staying away from church does? It develops a habit of lying. There isn't one man in a hundred who could go on the witness stand and give, under oath, the same reasons for not going to church that he gives to his family every Sunday morning. My son, if you didn't think you ought to go, you wouldn't make any excuses for not going. No man apologizes for doing right.

SOME WONDERFUL THINGS.

"Martin," said a wise grammer-school boy to his little brother of six, "come here and tell me what you have inside of you."

"Nothing," said Martin.

"Yes, you have. Listen; You've got a whole telegraph stowed away in your body, with wires running down to your very toes and out to your finger-tips."

"I haven't," said Martin, looking at his feet and hands.

"You have, though; and that isn't all. There's a big force-pump in the middle of you, pumping, pumping seventy times a minute all day long, like the great engine I showed you the other day at the locomotive works."

"There is no such thing" ——

"But there is, though; and besides all these things, a tree is growing in you with over two hundred different branches, tied together with ever so many bands and tough strings."

"That isn't so, at all," persisted the little boy, about ready to cry. "I can feel myself all over, and there's no tree or engine, or anything else except flesh and blood."

"Oh! that isn't flesh and blood; that's most of it water. This is what you are made of—a few gallons of water, a little lime, phosphorus, salt, and some other things thrown in," said his brother.

Tears stood in Martin's eyes, but the grammar-school boy went on: "And the worst of it is that there's ever so many million little—but where is Martin?"

The poor little fellow had run away. When his brother found him, he was kneeling with his head in his mother's lap and crying.

"I was only teasing him, mother, and kind of getting up my lesson about the body that we're to have this afternoon. I didn't think it would worry him so."

The big boy kissed his mother and ran away to school, while the little fellow had a talk with mamma about the wonderful things inside of him.—*Santa Claus.*

HEAVEN "THROWN IN."

This compromise life is the most unhappy and wretched of all lives. It is not only very certain that he who sits between two stools falls to the ground, but that during the short and unhappy time that he manages to maintain his balance, he is in a miserable state of suspense and uncertainty. For a thoroughly unhappy man commend us to the Christian with the pricking conscience, who is living a half-and-half life, and who is willing neither to give up the world nor to cast Christ aside wholly. For a thoroughly happy man commend us to him who, though poor and humble and obscure, is willing to follow Christ wholly. In this connection, a familiar story of Father Randall, one of the founders of the Free Baptist denomination, is pertinent. As the old man was about to die, some of his friends gathered about his bedside remarked, "Well, Father Randall, you've had a hard time here, but you'll have your reward in heaven." This was a theology that the old veteran could not countenance, even by his silence, and straightening up on his dying bed, he cried out, "No, not so, not so! I've had my reward every day as I went along, and heaven will be thrown in at the end." It is no otherwise with every devoted child of God. He will have his reward every day of his faithful life, and heaven will be the additional gift of God's free grace at the end.—*Golden Rule.*

IF YOU WANT to be miserable, think about yourself—about what you want, what you like, what respect people ought to pay you, and what others think about you.

A CANADIAN HEROINE.

(Continued from Messenger of Jan. 8.)

It had broken away close at the base, the posts breaking off short, and leaving part of the floor still fastened to the rock. The upper part of the tower being heavy—owing to the machinery and the heavy metalwork of the lantern—when it fell over into the sea the top sank perpendicularly into the water, the base remaining uppermost, and two of the floor beams still lay across it with some of the flooring.

As for the brave girl, she never knew how it came to pass, but in some providential way she floated upward from the lantern to the base, and when consciousness returned, found herself in the midst of the wild sea with a large beam at her elbow. This she at once seized with both arms, holding firmly and stooping her head when a great wave came breaking over the top of the wreck. At the base of the tower there happened to be a coil of weight rope, such as is usually kept in those lighthouses, and when the tower tumbled over this remained upon its hook upon the wall. The girl espied it, and putting a coil of it around her waist she fastened it with two half-hitches, and then secured the bight to a stout broken timber above her. Then she lay across the beam smitten by the cruel billows, praying for the dawn. The constant pounding of the waters upon her body began to stupefy her and make her insensible to pain. Then she lay scarcely caring what fate befel her; but through her numb senses she knew the storm was abating.

The tower drifted far out into the lake and when the sun rose touching the subsiding waves with yellow gold her father and the anxious folk on the shore saw the base of the tower bobbing up and down in the waves. Just as soon as it was smooth enough they launched a couple of boats and went out to tow the wreck to shore, the father broken-hearted at what he naturally believed to be the destruction of his daughter; the fishermen sorrowing over the fate of the brave young girl; but think of their joy as they neared the wreck to see her lying fastened to the timber at the base of the tower, her hair floating in the water and feebly raising her arm as she espied them. They unlashed her, took her into the boat and rowed swiftly to shore again. She could not speak on the way and was partly unconscious, but after a while revived and told them the terrible story of her experience.

The Government did not build another lighthouse upon the rock, and it remains to this day a menace to ships, while Gypsy has developed into a beautiful woman, admired and beloved by everyone for her heroism.

The Dominion Government, in recognition of the brave conduct of the young girl, settled upon her a pension of $1,000 a year for life.—*By Edmond Collins, in Canada.*

THE MISSIONARY PIG.

"It's all right for Chaplain McCabe to talk about a million for missions, but that don't make crops any better. He'd turn farms, cows, pigs, and all into the missionary box if he could." Mr. Simpson gave an uneasy laugh as he said this.

"Well, pa, I would have slept better if you had put your name down for something last night. His speech was worth a good deal, if we did ride twenty miles going and coming to hear it, and Roy enjoyed the singing so. I'm glad we took him, but I feel as if I had China, India and Alaska all on my heart to-day," and Mrs. Simpson sighed as she began gathering up the dishes.

"Oh, he's all right. The church needs to be awakened. We don't pray enough for the heathen; but a man must look to his own first. Just fill my pipe, ma, while you're at the cupboard. Have a good dinner; I'm working hard seeding alone. Good-bye, Roy." And, lighting his pipe, he slammed the door and was off.

There was a cloud on Mrs. Simpson's plump, rosy face that morning. Don't imagine it was because her husband did not kiss her good-bye. He had left off such demonstrations long ago, and if Mrs. Simpson missed the little attentions most wives prize, no one was the wiser. She was looking around the neat kitchen, which also served as dining and sitting room, and thinking of women less fortunate in far-away-lands. The new rag carpet with its strip of painted floor around the stove, the cheap prints on the wall, the plants and canaries in the windows, all made a pleasant picture. The feeling of possession, thinking of the well-furnished front rooms shut up for company, and the beautiful hard-earned acres outside, made her feel a very rich woman. When she reflected there were many near, as well as in foreign lands, who did not enjoy such pleasant surroundings, her eyes fell on the glimmer of white marble in the little hillside cemetery in the distance. Two little mounds were there which held what was far more precious than all that money could buy; but she knew her lost lambs were folded with the Good Shepherd. "It is because no hope for the future is so much harder than present poverty, the case of the heathen is so much worse than being poor here. There is not a mother in this country but has heard of Jesus. Oh, yes, being where there is no Jesus is the most terrible thing in the world," and as Mrs. Simpson decided this simple truth, she could hardly keep back the tears. Her only child sat in his low rocker by the window, and his pale face and the crutches by his side told of another heart-ache the mother found necessary to carry to the Burden-bearer.

"Ma," Roy said, "I've been thinking over what he said, too. It kept me awake last night. He said it took only forty dollars a year to send a boy to school in India, and after a while that boy might be a preacher, and lead hundreds of people to Christ. Ever since you read me the life of Dr. Judson I've ached to be a missionary. I think I'd choose India."

"Darling, if the Lord wants you to go to India he will cure you. I wanted to go when I was young, and I would be proud to give a son to the cause; but my boy will stay at home and take care of ma when she gets old," was the answer.

"Pa did not go to the war," Roy went on.

"No; he couldn't leave, but he sent a substitute, so it was just the same."

"Don't you suppose Jesus meant if I did not go, I ought to send a substitute, ma?" Roy asked, with eager, shining eyes. "If his 'go ye into all the world' means anybody, why doesn't it mean Roy Simpson?"

"I never thought every one must go or send, though I don't see why it should not be as binding as serving one's country. If every one who couldn't go would send a substitute, of course the world would soon be brought to Christ. But it's no use; pa never will give but a dollar a year for missions. Don't worry, dear! I'm going to make mince pies, and you can key them for me, after you stem some raisins."

"I ought to send a substitute," insisted Roy, looking at his lame foot.

"Here's something for you, Mattie," said Mr. Simpson, as he came in at noon. "A hog killed its mother and the rest of the litter. It's no use to raise pigs now. If they don't die one way, they die another. I thought dinner was ready." This last because the chairs were not drawn up. As he spoke he unrolled an old grain-bag and disclosed a very small specimen of a pig.

"I've no time to fool with a pig, warming its milk and having it around. You men think women can do everything," replied Mrs. Simpson, who had worried over the heathen until she felt like one herself. Mr. Simpson saw he had blundered, but not being just clear where, turned to Roy with his burden.

"O pa, give it to me!" begged Roy.

"I don't care, if ma'll have it around. Do you want it for a playmate?" was the answer.

"Do I want to raise it? May I have every cent it brings?" said Roy, eagerly.

"Yes, and corn to fatten it for market," said his father, with a laugh to see business interest in his bookworm of a boy.

Mrs. Simpson, relenting her hasty speech, consented at once, and so this particular pig became a member of the Simpson family.

Never did a pig have a daintier babyhood. Roy fixed up a box for its bed in the shed, and fed it on warm milk and scraps from the table, for he said this pig was too important to be a dishwater pig. It soon became as pretty as a pig could be from its funny pink nose to its little curl of a tail. It became quite a pet, and would eat out of his hand or follow him around like a dog. But it tried its little red nose on Mrs. Simpson's pansy bed, so its liberty was at an end. Roy declared it should not associate with the vulgar herd that wallowed in the mire behind the barn, so "Sub," as she was called, had a corner of the garden penned off for her playground, and a little shed for her shelter. Mr. Simpson tried in vain to guess the meaning of her strange name, though Mrs. Simpson was evidently in the secret. Roy found out enough of hog-ology to inform his father that pigs were a much slandered race, for they roll in water and damp places to cool themselves and get rid of vermin, and prefer clean places to sleep in. Mr. Simpson laughed at it all, but admitted Roy's pig was thriving much better than his, and was a good investment, since it kept the boy out of doors away from books.

One cold November day the time came for Roy to part with his pet. He shed tears and even kissed its fat nose when he thought no one was looking, but he refused his father's advice to keep her.

"No, pa, she's my missionary pig, and her real name is Substitute. I want to send a substitute to India 'cause I'm lame and can't go. Get all you can for her," was the boy's answer at last.

Then Roy's devotion to this pig was explained to Mr. Simpson, and he went off in a very thoughtful frame of mind. When he came back he gave Roy ten silver dollars, saying: "Your pig was the best of its age in market, as fat as butter, and solid as lead. You've earned it, so send it off if you want to. Why, any farmer could spare one pig a year and hardly miss it."

"O pa, will you let me have one every year?" begged Roy. "Then by the time I am grown I can have a substitute in India, just as you had in the war. See, pa, I'm lame and can't go, and Nellie and Willie are in heaven and can't go, so I must send a substitute."

Mr. Simpson drew his rough hand across his eyes, and said: "My son, I never thought of that. I paid three hundred dollars to send my substitute to the war, when I had to borrow the money and work nights to pay the interest. I never thought of doing as much to fight the Lord's battles. I'll help. Let me see; you take a missionary pig every year, and that will make you ten dollars; and ma"—

"Oh, I can easily spare that much out of the butter and eggs, if you are willing," interrupted Mrs. Simpson, eagerly.

"Well, that leaves twenty for me to raise, and I don't put much by for a rainy day, as it is. I'll light my pipe and think it over." He sat down by the stove a moment; then rose suddenly, lifted the lid and emptied the pipe into the fire. "I'm blessed if I'm going to let you and ma do all the giving. I'll give up my tobacco; that will make the other twenty. I didn't know I was sending my substitute up in smoke. Here, Mattie, gild this pipe and tie a pretty ribbon on it, and hang it over the Bible where I can remember my obligations when I feel the old hankering coming back. When we get Roy's substitute in the field, I might send one for John Simpson."

When he had finished speaking his wife handed him the Bible for evening worship, and for the first time he prayed from a full, believing heart that the kingdom of God might spread in every land.

Now a pipe hangs over the old Bible, and by it is a decorated cigar-box, with an opening on top. Every time Mr. Simpson goes to the store he puts in what he usually had spent for tobacco. Every Saturday Mrs. Simpson counts out of the butter money her part of the "substitute" money with a happy heart. Occasionally Roy earns a few pennies, which go in to keep his ten silver dollars company, so by the next annual missionary meeting a boy in India will be put in school; and who can tell of all the good that will come from one little missionary pig!—*Myra Goodwin Plantz, in North-western Christian Advocate.*

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NOTES AND NOTICES.

BOUND TO HAVE IT.—I must and I will have it, exclaimed the little man and he dashed the paper to the floor, jumped from his chair and brought his clinched hand down on the table vigorously; then, mopping his brow and adjusting his glasses, he seated himself, seized his pen and in a nervous, excitable hand wrote: D. M. Ferry & Co., Seedsmen, Windsor, Ont., *Gentlemen*: Referring to your advertisement in the *National Intelligencer*, I notice that you say that your Seed Annual for 1892 is free to all applicants. As I buy considerable quantities of vegetable and flower seeds each spring, I would esteem it a favor if you would mail me *your* Catalogue. My neighbors say it is the best.

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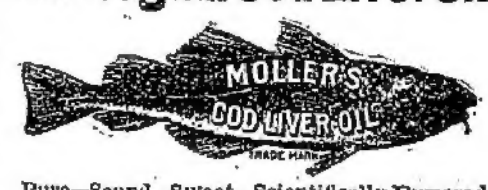

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